Bulletin of the TEXAS ORNITHOLOGICAL SOCIETY

VOLUME 10
NUMBER 2

NOVEMBER–DECEMBER, 1977

James Harvey Johnson

BULLETIN OF THE

TEXAS ORNITHOLOGICAL SOCIETY

Vol. 10 November–December 1977 No. 2

Contents

Natural Resource Management in Texas Parklands: An Overview. *David H. Riskind* 26

Purple Martins Versus Starlings and House Sparrows in Nest Site Competition. *Charles R. Brown* 31

Additional Walker County Records to Oberholser's "The Bird Life of Texas." *Kelly B. Bryan and Ralph R. Moldenhauer* 36

Recent Articles About Texas Birds. *Alan D. Mitchnick* 39

General Notes

Black-legged Kittiwake Sightings on the Upper Texas Coast in Winter of 1976/1977. *Ted L. Eubanks, Jr.* 42

American Woodcock Nesting in Smith County. *Warren M. Pulich* 44

Southern Nesting Record of the American Woodcock. *Brian W. Cain, Richard J. Whyte, and Pat Micks* 46

Nocturnal Lesser Yellowlegs Migration in North Central Texas. *Charles R. Brown* 47

Pigeon Nest Constructed of Wire. *Eric G. Bolen* 47

Book Reviews 35,43,49

Notes and News 51

Natural Resource Management in Texas Parklands: An Overview

David H. Riskind

Resource Management Section, Texas Parks and Wildlife Department, 4200 Smith School Road, Austin, Texas 78744

Prior to European settlement of Texas, this state's natural landscape was considerably different than it is today. Ranching, farming, forestry, urbanization, energy exploitation, and the introduction of numerous species of both plants and animals have dramatically changed the natural community composition and structure of Texas' landscape. Like the remainder of Texas, state parks also have had their landscapes modified. Before they became parklands, these areas were utilized either for the production of timber, food, or fiber crops, or for cattle production. Enlightened stewardship of these lands must rely on integrated natural resource management in which the prime objective is to balance recreational utilization while maintaining or reestablishing biotic diversity, natural community integrity, as well as to perpetuate natural processes.

The Texas state park system is characterized by a diversity of parks distributed throughout the varied Texas landscape. The system consists of approximately 57,467 ha (142,000 acres) in 101 parks. Of these 101 parks, only 73 contain significant natural resources; the remainder being park units primarily concerned with conserving historic sites or structures. Our largest park is Palo Duro Canyon, which contains approximately 6,475 ha (16,000 acres). Most units with natural areas average less than 800 ha (2,000 acres).

The Texas Parks and Wildlife Commission established the Resource Management Section within the Parks Division of the Department in the latter part of 1972 in order to meet the needs of growing environmental awareness and concern. Not only did existing parklands require increased conservation measures, but there were new lands to be acquired. Here, management priorities dictated that natural processes soon to be freed from economic and exploitative constraints, be stabilized or redirected, and perpetuated. Within older parks, decades of intensive public use had developed critical resource problems which required attention. Among these were severe soil compaction with resultant erosion, loss of vegetation, and a general deterioration in aesthetic character as well as marked diminution of biotic integrity within heavily used campgrounds and activity areas.

Many now critical use areas within our parklands had been deteriorating for three decades predating contemporary man's awareness of his impact on the landscape. Even now, with society's awareness of the environment, the individual is still largely ignorant of his contribution to resource utilization and its resultant, often deleterious, effects. In parks, the individual camper or group neither comprehends nor fully appreciates his contribution to the park landscape. What he should be painfully aware of is, however, that he is one among the millions who utilizes our state's parkland resources each year. Fortunately, it takes but little effort to convince even the ardent sceptic these millions do indeed affect the natural resources of our parklands.

Fig. 1. Controlled burn at Galveston Island State Park, Galveston County. Burned areas are intensively utilized by wintering marsh birds.

Once the major causes of site deterioration have been isolated, it is then the Resource Management Section's task to initiate a management program to restore or rehabilitate a site's natural resources. This activity may include reseeding a mixture of grasses indigenous to the site; replanting with suitable trees or shrubs in an attempt to revigorate the stand; or may even include thinning of a forest stand so that increased sunlight may penetrate to the understory and herbaceous community components.

While much of our attention is focused on providing ecological services or resource management within the developed public-use areas of our parks, the most significant aspect of our program is a diversified resource management effort aimed at restoring natural communities which occur in the undeveloped portions of our parks. Our goal is to maintain or reinitiate natural processes characteristic of pristine areas. For example, in the East Texas Pineywoods (in parks such as Huntsville or Lake Livingston), this means reestablishment of natural community processes which implies a departure from a forest products' industry management regime. Depending on site characteristics and potential vegetation, management may include reinitiation of a natural fire cycle with periodic, prescribed burns; removal of exotic species; or thinning cuts to decrease the density of pines, thus increasing hardwood density and species diversity in forest stands.

Similar management options have been exercised in grassland ecosystems where our primary thrust has been to reestablish either tall-grass, coastal, or mixed-prairie communities. Reestablishment may be realized through reseeding with native, indigenous grasses and forbs, or by applying a variety of management techniques that modify successional changes in vegetation and associated fauna toward a desired stage (Fig. 1).

Fig. 2. Sand dune stabilization project at Sea Rim State Park, Jefferson County. Mechanical barriers promote capture of sand and provide favorable microhabitat for seedlings.

The management program at Galveston Island State Park may be of special interest. Primary natural resource management in this park is directed at reestablishment of a coastal prairie (tall-grass) community on the uplands. A segment of the program involves controlled, prescription burns in selected areas of the park, wherein we have also integrated a subprogram for purposes of enhancing the habitat for certain fish-eating birds. Each wintering season we select small areas (ca. 12 ha) on the backside of the park in which to maintain a short-grass habitat. Most years, these short-grass areas are maintained by burns, but we have also maintained them by mowing. Such short-grass zones provide excellent wintering (and migrant) foraging and sunning sites for many of the park's cranes, herons, and egrets; and, in addition, may provide acceptable habitat for the endangered Eskimo Curlew, should it ever return to that portion of the Texas Coast.

A brief sampling of resource management projects include: control of exotic ungulates and feral hogs; coastal dune stabilization (Fig. 2); reintroduction of prairie dogs to a Panhandle parksite; restoration of a natural estuarine drainage pattern at Sea Rim State Park; manipulation of juniper-oak woodlands to enhance Golden-cheeked Warbler habitat at Meridian State Park; development of an Attwatter's Prairie Chicken reintroduction program at a Ft. Bend County parksite; and, at Balmorhea State Recreation Area, design and construction of a refugium and development of a habitat management program for the endangered Comanche Springs pupfish. Clearly, the Resource Management Section's programs are diverse; a few are weighted in favor of a special resource, but most are well integrated and community oriented, although there has been emphasis on the conservation of endangered and threatened species of late.

Check List of the Birds of Meridian State Park
Compiled by Warren Pulich
BIRDS OF LAKE CORPUS CHRISTI
BIRDS OF PEDERNALES FALLS STATE PARK
A SEASONAL CHECKLIST
BIRDS of Galveston Island State Park
BIRDS OF BUESCHER & BASTROP STATE PARKS
BIRDS of Sea Rim State Park
A Checklist of the Birds of Palo Duro Canyon State Park

Fig. 3. A partial selection of bird checklists available from the Resource Management Section. Requests for checklists should be addressed to the author.

Inherent in our programs is a detailed consideration of all park resources prior to the initiation of any management option, in hopes that no resource, either biological or cultural, may be compromised. Environmental assessments are prepared for large-scale projects. All programs are monitored for effectiveness, as well as for long- and short-term effects, and the results are incorporated in future or continuing management endeavors.

In addition to restorative or ameliorative natural resource management, the Resource Management Section also provides a wide variety of ecological and management services for the planning and operational functions of the Parks Division. We also act as a general environmental/ecological clearinghouse, in which we provide or obtain ecological services for our park superintendents and field operations, whether the service consists of identification of either common or hazardous plants or animals; information on or diagnosis of plant pathogens, or maintaining a liason between state and federal regulatory agencies and park field operations.

Aside from gathering basic ecological data which, in part, serves as a baseline from which to conduct sensitive planning and development, the Resource Management Section prepares environmental impact statements for significant operational activities which may occur in established parks. Quite often, data which we have gathered on park resources are made available to the public in the form of brochures and checklists (Fig. 3), or directly to the parks so that the information may be included in interpretive programs.

Of particular interest to the Texas Ornithological Society are the checklists of the birdlife available for many of our state parks. Approximately 16 have been

published to date, while at least six are in the final stages of preparation. Most checklists have been compiled by non-departmental contributors and we have merely managed editing and final production. Our park checklists also represent examples of excellent cooperation between a public agency and private citizens.

The scientific basis of our ecological service and management function is an understanding of the biotic and physical resources within the state's parklands. Since our inception, we have gathered and compiled basic resource data on all of our major parks. Literature surveys, personal communications with professional colleagues, and gathering of field data have yielded a biophysical data base for our management/stewardship efforts. We and our cooperators have conducted resource inventories which have included, in addition to dominant flora and fauna, surveys for bryophytes, lichens, and other lower plants; terrestrial and aquatic gastropods; mollusks; lepidoptera and other arthropods, particularly beetles. Our inventories and subsequent management programs also include aquatic and cave environments. Much of the data are indexed for easy retrieval and reference.

Resource data gathered by our staff and from cooperators is supplemented by encouraging the use of parklands as natural areas in which ecological research may be conducted. Several of our parks are included as research facilities within The Texas System of Natural Laboratories (T.S.N.L.). We administer a scientific/educational permit system for coordinating and managing such research in our parklands. Moreover, biological and management data are obtained through cooperative agreements with other state and federal resource agencies, by contracting ecological services with appropriate authorities, or through in-house coordination, with the nongame biologists, for example.

Although much of our natural resource data gathering is general and qualitative, we have initiated some detailed, quantitative analyses of our parkland communities. Special attention has been directed towards obtaining detailed inventories and appraisals of our special resources, whether these resources consist of outstanding rookery areas; endangered, threatened, or peripheral species; relictual, pristine communities; or even particularly outstanding examples of a fairly common community type or plant or animal association. This natural resource information can then be integrated into the total parks program and reapplied to address subsequent resource management options, impact assessments, or ecosystem analyses.

Insofar as possible, our entire program is geared to a concept of natural community stewardship and management in which we make every effort to incorporate and blend contributions, not only from the natural sciences, but also from park planners, landscape architects, geologists, historians, and archaeologists. In so doing we feel that our activities promote the conservation, stewardship, and prudent management of our parkland's natural resources, while, at the same time, accommodate the needs of park operations and maintain optimum levels of visitor enjoyment and appreciation.

Purple Martins Versus Starlings and House Sparrows in Nest Site Competition

Charles R. Brown

Box 1309, Austin College, Sherman, Texas 75090

The Purple Martin (*Progne subis*), a widespread birdhouse-nesting swallow over much of North America, often faces severe nest site competition with Starlings (*Sturnus vulgaris*) and House Sparrows (*Passer domesticus*) throughout most of its range. Several authors (Sprunt *in* Bent 1942, Allen and Nice 1952, Olmstead 1955) have commented on problems that House Sparrows and Starlings pose to martins. Jackson and Tate (1974) analyzed nest box occupancy by the 3 species in eastern North America. Here I present a descriptive report of behavior of Purple Martins while competing with House Sparrows and Starlings for nest sites. Such a report has been largely lacking in the literature until now.

Observations were made during a Purple Martin study in Sherman, Grayson County, Texas from 1968–76. I conducted intensive surveillance of one martin colony in Sherman, and an additional 35 colony-locations were surveyed in Grayson County during the time of the study.

Part I. Purple Martins Versus Starlings

Although Sprunt (*in* Bent 1942) stated that Starlings and Purple Martins usually coexist peacefully and Kessel (1957) wrote: "Once settled in his small domain . . . the Starling becomes an unobtrusive neighbor," Gaunt (1959) found Starlings to present serious threats to martins, and my study confirms Gaunt's finding.

Starlings occupy nesting territories that may be as large as an entire martin house (Kessel 1957); I never found more than one pair of Starlings in a martin house that was also occupied by martins. However, in martin colonies that contained more than one martin house, a Starling pair often occupied each of the houses. Some colonies in Sherman literally became "Starling colonies." These were old colonies that consisted of several wooden birdhouses. No martins or House Sparrows used these, and several Starling pairs occupied each house. Two Starling colonies were located in Sherman during the time of the study. In earlier years martins had occupied these colonies, but the human owners had either died or moved, and the houses were no longer maintained for martins. Twenty pairs of Starlings used the largest of these colonies (about 60 rooms). Such population density for Starlings was not noted by Kessel (1957).

Starlings showed a decided preference for wooden martin houses in Sherman, a tendency also shown for those studied in eastern North America by Jackson and Tate (1974). However, there were at least 15 instances of Starlings nesting in aluminum martin houses in Sherman, even though Wade (1966) and birdhouse manufacturers in general claim that Starlings will never nest in metal martin houses.

New and small martin colonies in Sherman suffered more Starling activity than large, well-established ones. These latter colonies attracted Starlings mainly in the early part of the season (February through mid-March) when few martins had

arrived. Newer and smaller colonies in Sherman suffered Starling activity until mid-May. Colonies which had a 50% (or greater) room occupancy rate by martins had very few or no Starlings, and most colonies with a 25–30% martin occupancy rate (which seems to be about average in Sherman) had only moderate Starling use. But colonies which had less than 25% room occupancy by martins usually had at least one Starling pair.

If martin houses remained open during the winter, Starlings frequently entered them. They ignored the houses during cold, cloudy weather and during the afternoon; only rarely did they roost in them. When the first martins arrived in spring, Starlings were at first wary and watched the martins from nearby utility wires or trees. After a few hours, despite the protests by martins, Starlings became less wary and entered the rooms. As more martins arrived, Starlings seemed intimidated by their large numbers. Starlings that were established did not leave when more martins arrived, but new Starlings generally avoided the colony at that time. When visiting Starlings came to a large colony, they appeared nervous and were easily chased away by the martins.

Starlings often roamed freely in all rooms of a colony in the early part of the season, but they generally tended to prefer only 1 or 2 rooms of a house. After they became established, they confined most of their activity to those rooms, although in colonies with few martin pairs, the established Starlings occasionally entered martin nests even in the mid or latter part of the season. In colonies with large martin populations, Starlings seemed more timid and rarely interfered with martins.

Fighting between martins and Starlings consisted largely of threats by martins. If a Starling entered a martin's room, the martin pair perched around the entrance, arched their backs, partly suppressed the feathers of their crowns, and gaped at the Starling. When the intruder exited, the martins darted at its back as it flew away. After a Starling left, martins seemed nervous and reluctant to enter the room where the Starling had been. Starlings were seldom bothered by the martins' gaping, and they came and went despite the martins.

Both species seemed reluctant to engage in physical combat. On 2 occasions, however, I recorded Starlings killing adult male martins. In these instances Starlings cornered martins in rooms and dragged them out onto the porch and killed them by pecks on the head. Once a martin ousted a Starling. In this case the Starling entered a martin nest during the early morning shortly after the female martin had laid one of her eggs. The female was in the nest, and the male martin was guarding on the porch. The Starling darted into the nest before the male martin could react. The female martin immediately flew from the nest, but the male followed the Starling into the nest. In a few seconds the Starling tried to exit but the male martin held onto its back in the same fashion that martins oust other martins. He soon freed the Starling, which did not return. Despite the fight in the nest, the martin eggs were unharmed. This particular male martin was a very dominant, rather "quarrelsome" individual.

Purple Martin defense against Starlings appeared to be largely individualistic. Apparently martins have very weak or no colonial defense mechanisms. If all the martins in a colony attacked the intruding Starlings, the Starlings could be driven away easily. But only those martins which the Starlings were bothering attacked them. These martins soon learned to recognize Starlings and swooped at them before they could reach the martin house. When martins swooped at Starlings sitting

on wires or television aerials, the dive was usually accompanied by a "zwrack" note. Yet on one occasion I did note colonial defense against Starlings. One very aggressive Starling in late April 1973 attempted to enter many of the martin nests in a 15-pair colony during the martins' peak egg-laying period. Soon most of the martins in the colony flew out to dive at the Starling whenever it appeared in the yard, and they often chased it into some low bushes. They attacked only this particular Starling, and other Starlings passed by without eliciting responses from the martins.

Several writers have commented on the Starling's habit of throwing other birds' nests out of nest cavities (e.g. Bent 1950 and Kessel 1957). Because Starlings usually settled down and claimed only 1 or 2 rooms by the time martins started nest building, the throwing-out of martin nests by Starlings was not widespread. However, I have, on occasion, seen Starlings preempt occupied martin nests and throw out nest materials. Sometimes I saw them throw out martin eggs, but I never saw them eat eggs as noted by Gaunt (1959). One martin fancier reported to me that a Starling had entered a martin nest in his colony in June and killed a juvenile martin that was ready to fledge.

The only effective method for Starling control around martin colonies seemed to be shooting (in areas where permitted). I experimented with other control techniques, such as mouse traps in the nest, playback of distress calls, and firecrackers, but only shooting was consistently effective. Starlings usually avoided a martin colony after 6 or 7 were shot. If they were not shot at for a few days, Starlings became tame and could then be shot easily. Once shooting started, however, the survivors became wary and left whenever a person appeared. Shooting Starlings apparently did not bother martins.

Part II. Purple Martins Versus House Sparrows

Virtually all writers concerned with Purple Martin breeding biology mention nest site competition between martins and House Sparrows. All colonies in Sherman that contained martins had 1 or more pairs of sparrows. Sparrow population surveys at several martin colonies in Sherman indicated that sparrow populations fluctuated inversely with martin populations, especially in colonies with dense martin populations (since fewer rooms were available for sparrows), and in new colonies with only a few martins (since more rooms were available for sparrows). However, Olmstead (1955) suggested that martin and sparrow populations fluctuate directly. Direct fluctuation was apparent in Sherman only in colonies which increased the number of rooms that were available each year (by installing more birdhouses), thus enabling more martins and more sparrows to occupy the colony each year. House Sparrows seemed to show no preference for either wooden or aluminum birdhouses.

House Sparrows used open martin houses throughout the winter. They roosted in them and brought nesting materials into the houses on warm days, even in December. If a martin house was lowered or closed for the winter, a few sparrows continued to sit on the house and quickly moved in when the house was reopened. When the first martins arrived, the sparrows perched on the roof of the martin house or on nearby utility wires and scolded. In large, established colonies most sparrows were passive, and the martins got first choice of the available rooms. However, in new colonies, and occasionally in established colonies, sparrows became aggressive and chased away newly arrived martins.

Martins usually ignored sparrows unless they tried to intrude into the martins' rooms. The 2 species got along remarkably well, particularly in the latter part of the season when all the birds had established ownership of rooms and when nesting was under way. But if new sparrows arrived and tried to claim a room, fights between the new sparrows and martins were frequent. New sparrows continually arrived at a colony throughout the season.

Fights occurred in the early part of the season as martins and sparrows competed for rooms. Martins attacked sparrows by flying at them and grabbing the sparrows with their bills or feet. When martins chased sparrows, the sparrows usually retreated but never very far. I have seen martins chase sparrows around a martin house for several minutes. As with Starlings, martins frequently gaped at sparrows. Martins occasionally entered rooms in pursuit of sparrows and ousted them in the same fashion that they ousted other martins.

Martins were usually victorious in encounters with sparrows, but martins would not continue fighting for much longer than a few minutes at a time. The sparrows' persistence usually won them a room. Although sparrows could be kept out of a room when the martins were present, they slipped in while the martins were gone and built in the room. After a few days too much grass was in the room for the martins, so they relinquished that room to the sparrows. Sometimes martins successfully appropriated partly built sparrow nests and used them for their own.

Aggressive sparrows occasionally tried to claim part or all of a martin house, and the sparrows attacked the martins by darting at them and chasing them. If a martin landed by an aggressive sparrow's room, the two began fighting on the porch. Typically, the 2 birds pecked at each other's body, often extracting feathers, and martins used their wings to hit the sparrows. They would often fall off the house and continue to fight on the ground. I have no firm evidence that adult sparrows kill adult martins, or vice versa, but once I suspected that several sparrows "ganged up" on a martin and killed it in one of the martin house rooms.

If a martin entered and remained in a sparrow's room, the sparrow pair hopped excitedly around the entrance. They partly spread their wings, arched their bodies forward, and uttered their scolding "chee-chee-chee" note. Knight (1908) and others reported Purple Martins throwing other birds' nests out of nest cavities in the manner of Starlings. During 10 years of observation, I have never seen a martin throw out another bird's nest. However, I have occasionally seen martins throw out very young sparrows but leave their nests intact. Throwing young out has also been noted for the Southern Martin, *Progne modesta elegans* (Wetmore 1926).

House Sparrows commonly removed martin eggs and young. Virtually all colonies in Sherman lost at least a few martin eggs or young each year to sparrows. The sparrows that were established at the colony did not engage in these raids, but newly arrived sparrows destroyed many martin eggs and small young as they roamed around the colony, entering rooms when martins were away, particularly in cool weather. On 27 May 1976 sparrows destroyed 14 martin eggs during 2 hours in the afternoon when most of the martins were gone. The day was very cool.

Once I recorded a House Sparrow laying an egg in a martin nest that contained 4 martin eggs. The sparrow egg did not hatch. Also, once I noted a juvenile sparrow that had entered a martin nest and was fed by a martin (Brown 1977).

I found no suitable means of House Sparrow control around martin colonies.

Sparrow nests should be cleaned out in the early part of the season, so that more rooms will be available for martins and sparrows to vie for. I found that if humans destroyed sparrow nests later in the season, the sparrows thus became confused and displaced, and then they wandered into martin nests with disastrous effects on martin eggs and small young. In the latter part of the season, I removed only the sparrow eggs and left their nests. They usually laid again and did not bother the martins.

Literature Cited

Allen, R. W. and M. M. Nice. 1952. A study of the breeding biology of the Purple Martin (*Progne subis*). Amer. Midl. Nat. 47:606–665.

Bent, A. C. 1942. Life histories of North American flycatchers, larks, swallows, and their allies. U.S. Natl. Mus. Bull. 179.

———. 1950. Life histories of North American wagtails, shrikes, vireos, and their allies. U.S. Natl. Mus. Bull. 197.

Brown, C. R. 1977. Unusual feeding behavior of a male Purple Martin. Bull. Texas Ornithol. Soc. 10:15–16.

Gaunt, A. S. 1959. Behavior in the Purple Martin. Kansas Ornithol. Soc. Bull. 10:14–16.

Jackson, J. A. and J. Tate, Jr. 1974. An analysis of nest box use by Purple Martins, House Sparrows, and Starlings in eastern North America. Wilson Bull. 86:435–449.

Kessel, B. 1957. A study of the breeding biology of the European Starling (*Sturnus vulgaris* L.) in North America. Amer. Midl. Nat. 58:257–331.

Knight, O. W. 1908. The birds of Maine. Bangor, Maine.

Olmstead, R. 1955. Observations on Purple Martins. Kansas Ornithol. Soc. Bull. 6:8–10.

Wade, J. L. 1966. What you should know about the Purple Martin. Griggsville, Illinois.

Wetmore, A. 1926. Observations on the birds of Argentina, Paraguay, Uruguay, and Chile. U.S. Natl. Mus. Bull. 133.

THE WEB OF ADAPTATION: BIRD STUDIES IN THE AMERICAN TROPICS by David W. Snow. 1976. "A Demeter Press Book," Quadrangle/The New York Times Book Co., New York, 176 pp. $8.95.—This book is an excellent example of the presentation of scientific research in a language that is at once precise and readable by the lay public. Snow joins the ranks of Olin Sewall Pettingill, George Miksch Sutton and George Gaylord Simpson with his facility to describe the drama of field research. The courtship rituals and life styles of manakins and cotingas are described from his experiences in Trinidad and Tobago and South America. From the delightful "Catherine wheel" dance of the Blue Manakin in Brazil to the bizarre "mooing" call and flashing "tail lights" of the Calfbird in Guyana, Snow weaves an intricate tale of the selection pressures that have allowed tropical fruit-eating birds to devote most of their energy and time to elaborate courtship. He ends the book with a disturbing warning of the future for the seventy-nine species of cotingas in the fading forests of tropical America. Whether or not you travel or intend to travel to the American tropics, buy this book.—*Terry C. Maxwell.*

Additional Walker County Records to Oberholser's "The Bird Life of Texas"

Kelly B. Bryan and Ralph R. Moldenhauer

Department of Life Sciences, Sam Houston State University, Huntsville, Texas 77341

Recently Barr, Arnold and Holm (1975, Bull. Texas Ornithol. Soc. 8:8–10) published a list of bird specimens that updated the county records for Oberholser's monumental work, *The Bird Life of Texas* (1974, Univ. Texas Press, Austin and London, 2 vols. 1,069 p.). In the list, they include two records for Walker County, the Canvasback (*Aythya valisineria*) and the White-breasted-Nuthatch (*Sitta canadensis*). Since 1968 several other specimens and photographic records have been accumulated for Walker County birds for which there are no county records indicated in Oberholser's work. The records, reported here along with the month and year obtained, consist of 101 specimens and 7 photographs of 70 species. The specimens were salvaged or collected for the teaching and research collection located in the Department of Life Sciences, Sam Houston State University. The photographic records were obtained by various individuals and are on file at Texas A & M University in the Texas Photo-Record File. No attempt was made to include the numerous sight records for the county. Those interested in Walker County sight records are referred to *A Checklist of the Birds of Walker County Texas* (1978, in press) available from the Sam Houston State University Bookstore. For convenience and completeness, individual specimen records previously reported in the literature but not in Oberholser are included in the list. Scientific nomenclature follows the A.O.U. Checklist of North American Birds (1957, 5th Edition) as currently supplemented (1973, Auk 90:411–419; 1976, Auk 93:875–879). The list follows the order of Oberholser and includes his nomenclature in parentheses where it differs.

Podiceps caspicus (*Proctopus caspicus*)	Dec 1974
Podiceps dominicus (*Limnodytes dominicus*)	Sept 1977 (Texas Photo-Record File No. 122)
Phalacrocorax auritus	Nov 1974
Hydranassa tricolor	Oct 1976
Bubulcus ibis	Aug 1974
Nyctanassa violacea	Mar 1975
Botaurus lentiginosus	Mar 1975
Plegadis chihi (*Plegadis mexicana*)	Sept 1975, 1976
Eudocimus albus	Aug 1977
Anas rubripes	Dec 1974
Anas americana (*Mareca americana*)	Jan 1974, 1977
Aix sponsa	Jan 1970; Feb 1975

Aythya valisineria (*Aristonetta valisineria*)	Oct 1936 (Barr, A. L., et al. 1975, Bull. Tex. Ornith. Soc. 8:8–10)
Aythya marila	Dec 1973
Bucephala albeola	Nov 1975
Clangula hyemalis	Dec 1973
Lophodytes cucullatus	Dec 1974; Nov 1976
Aquila chrysaetos	Oct 1972 (Texas Photo-Record File No. 123 a & b)
Rallus limicola	Jan 1975
Porzana carolina	Dec 1974; Apr 1977
Gallinula chloropus	Oct 1976
Pluvialis dominica	Mar 1975
Actitis macularia	Apr 1976
Micropalama himantopus	May 1976; Aug 1977
Larus delawarensis	Oct 1975
Sterna forsteri	Dec 1974; Oct 1975
Sterna caspia (*Hydroprogne caspia*)	Sept 1976
Chlidonias niger	Sept 1976
Crotophaga sulcirostris	Oct 1975
Caprimulgus vociferus (*Setochalcis vocifera*)	Apr 1971
Selasphorus rufus	Nov 1975–Apr 1976 (Texas Photo-Record File No. 121 a & b)
Empidonax virescens	Apr 1976
Empidonax minimus	Apr, May 1976
Riparia riparia	Sept 1970
Petrochelidon pyrrhonota	Sept 1970
Sitta carolinensis	Jan 1938 (Barr, A. L., et al. 1975, Bull. Tex. Ornith. Soc. 8:8–10)
Thryomanes bewickii	Jan 1970; Sept 1976
Cistothorus palustris (*Telmatodytes palustris*)	Mar, Oct 1975
Turdus grayi	Feb 1973 (Moldenhauer, R. R. 1974, Auk 91:839–840)
Hylocichla mustelina	Apr 1969; July 1973; Apr 1974, 1977
Catharus ustulata (*Hylocichla ustulata*)	Apr 1970
Catharus minimus (*Hylocichla minima*)	Apr 1976
Catharus fuscescens (*Hylocichla fuscescens*)	May 1977
Anthus spragueii	Mar, Dec 1975
Vireo bellii	May 1976
Vireo philadelphicus (*Vireosylva philadelphica*)	May, Oct 1976
Vermivora chrysoptera (*Helminthophila chrysoptera*)	May 1976

Vermivora peregrina (*Helminthophila peregrina*)	Apr 1972; May 1973
Vermivora celata (*Helminthophila celata*)	Oct 1975
Vermivora ruficapilla (*Helminthophila ruficapilla*)	May, Sept 1976
Dendroica petechia	May 1976, 1977
Dendroica fusca	May 1973, 1976
Dendroica castanea	Apr 1969; May 1973, 1976
Dendroica striata (*D. breviunguis*)	May 1977
Dendroica discolor	Apr 1976
Dendroica palmarum	Jan, Nov 1975
Seiurus aurocapillus	May 1976
Seiurus noveboracensis	May 1976; Apr 1977
Oporornis philadelphia	May, Oct 1975; May, Sept 1976
Wilsonia canadensis	Apr 1969; May 1976; Sept 1977
Dolichonyx oryzivorus	May 1977
Icterus parisorum	Jan–Mar 1970 (Texas Photo-Record File No. 82)
Piranga olivacea	May 1973, 1977
Pheucticus ludovicianus	May 1973
Pheucticus melanocephalus	Feb 1972 (Texas Photo Record File No. 120)
Spiza americana	May 1972; Sept 1975
Hesperiphona vespertina	Feb, Mar, Apr, May 1969; Jan 1973, (Moldenhauer, R. R. and K. B. Bryan 1970, Bird Banding 41:39)
Ammospiza caudacuta	Oct 1975
Spizella pallida	Nov 1974; Oct 1975
Zonotrichia leucophrys	Oct, Dec 1969

Recent Articles About Texas Birds

Alan D. Mitchnick

Department of Wildlife and Fisheries Sciences, Texas A & M University, College Station, Texas 77843

– 1976 –

Blankinship, D. R. 1976. Studies of Whooping Cranes on the wintering grounds. Proc. Int. Crane Workshop 1:197–206. The greatest danger is believed to be the threat of industrial chemical and petroleum spills within the crane's habitat.

Brown, C. R. 1976. Minimum temperature for feeding by Purple Martins. Wilson Bull. 88:672–673. Purple Martins in north central Texas cannot successfully forage at temperatures of or below 6°C.

Brown, C. R. 1976. Use of gravel by Purple Martins. Auk 93:842. Purple Martins in Sherman, Texas gathered and swallowed small bits of gravel and slivers of glass, possibly as an aid in digesting hard-shelled insects.

Guthery, F. S. 1976. Foods and feeding habitat of Sandhill Cranes in southern Texas. Proc. Int. Crane Workshop 1:117–125. Native plants comprised the bulk of the Sandhill Crane's diet in southern Texas, but rice and sorghum were important energy sources.

Howell, F. G. and B. R. Chapman. 1976. Acarines associated with Cliff Swallow communities in northwest Texas, Southwest. Nat. 21:275–280. Nineteen species of acarines (mites and ticks) were found to be associated with Cliff Swallows: some were ectoparasitic on other vertebrate nest inhabitants.

Johnson, K. W. and J. E. Johnson. 1976. An incident of Blue Jay predation on a Yellow-rumped Warbler. Wilson Bull. 88:509. Blue Jay attacked and killed a Yellow-rumped Warbler in a residential area in Temple, Texas.

Kiel, W. H. 1976. Bobwhite quail population characteristics and management implications in South Texas. Trans. 41st North Amer. Wildlife and Natr. Res. Conf.:407–419. Attempts to assess the potential impact of regional land uses on Bobwhite habitat.

King, K. A. 1976. Bird mortality, Galveston Island, Texas. Southwest Nat. 21:414. An estimated 5,000 dead birds washed ashore May 7–8, 1974 of which 62% were migrating passerines. A severe storm was probably responsible.

Mills, G. S. 1976. American Kestrel sex ratios and habitat separation. Auk 93:740–748. Data indicate widespread differential habitat utilization by American Kestrel sexes in winter.

Mosher, J. A. and C. R. White 1976. Direction exposure of Golden Eagle nests. Can. Field-Nat. 90:356–359. Data from Texas, Alaska, Montana and Utah suggest that developing eagle chicks may be quite sensitive to thermal stress.

Pence, D. B. and S. D. Casto. 1976. Nasal mites of the subfamily Spelcognathinae (Ereynetidae) from birds in Texas. J. Parasitol. 62:466–469.

Ramirez, R., G. W. Robestad, L. R. Hutchinson and J. Chavez. 1976. Myotic flora in the lower digestive tract of feral pigeons (*Columba livia*) in the El Paso, Texas area. J. Wild. Dis. 12:83–85. Fourteen species of fungi were isolated from

the lower digestive tracts of 69 of 80 pigeons. No association with clinical disease was found.

Rappole, J. H. and D. W. Warner. 1976. Relationships between behavior, physiology and weather in avian transients at a migration stopover site. Oecologia 26:193–212. Migration was studied in terms of physical, physiological and competitive barriers facing the individual. A basic theory on the interaction of the proximate factors affecting migration was proposed. Intensive work was done on the Northern Waterthrush (*Seiurus noveboracensis*).

Roth, R. R. 1976. Spatial heterogeneity and bird species diversity. Ecology 57:773–782. Patchiness has a proximate effect on avian diversity. Four Texas brush-grasslands were among the habitats sampled.

Schaefer, V. H. 1976. Geographic variation in the placement and structure of oriole nests. Condor 78:443–448. Geographic variation was due to differences in vegetation and responses to variation in environmental conditions such as wind and the abundance of predators. Texas data was from the Panhandle.

– 1977 –

Alford, J. R., III and E. G. Bolen. 1977. Influence of winter temperatures on Pintail sex ratios in Texas. Southwest Nat. 21:554–555. The percentage of males in the winter Pintail population on the Texas High Plains increased as temperature decreased.

Beavers, R. A. 1977. First specimen of Allen's Hummingbird, *Selasphorus sasins* (Trochilidae), from Texas. Southwest Nat. 22:285. Numerous unsubstantiated sightings have been reported in the past.

Brown, C. R. 1977. Brown-headed Cowbird courting a Purple Martin. Auk 94:395. An example of interspecific courtship in Sherman, Texas.

Brown, C. R. 1977. Starling feeding Purple Martin. Southwest. Nat. 21:557–558. Previous destruction of Starling nest might be responsible for this foster-feeding.

Burandt, C. L., Jr., E. S. Nixon and R. L. Willett. 1977. Woody vegetation of an inland heronry in east Texas. Southwest Nat. 21:475–486. The relationships between the African Cattle Egret and its environment were determined.

Butts, G. L. 1977. Aerial pursuit of Red-tailed Hawks (Accipitridae) by Turkey (Meleagrididae) hens. Southwest. Nat. 22:404–405. Observations were made on Kerr Wildlife Management Area.

Flickinger, E. L., D. S. Lobpries and H. A. Bateman. 1977. Fulvous Whistling Duck population in Texas and Louisiana. Wilson Bull. 89:329–331. Numbers have increased in Texas since 1970 when many rice growers began to voluntarily discontinue the use of aldrin-treated rice seed.

King, K. A., D. R. Blankinship, R. T. Paul and R. Rice. 1977. Ticks as a factor in the 1975 nesting failure of Texas Brown Pelicans. Wilson Bull. 89:157–158. Seven pairs of Brown Pelicans deserted their nests before their eggs hatched on an island near Aransas National Wildlife Refuge. Might be important for other colonial nesting birds.

King, K. A., E. L. Flickinger and H. H. Hildebrand. 1977. The decline of Brown Pelicans on the Louisiana and Texas Gulf Coast. Southwest. Nat. 21:417–431. "The remnant population of Brown Pelicans on the Texas Coast will disappear

unless reproductive success improves, because recruitment is presently insufficient to offset mortality."

Litton, G. W. 1977. Food habits of the Rio Grande Turkey in the Permian Basin of Texas. Texas Parks and Wildlife Dept. Tech. Series #18. 22 pp. Reports on the seasonal food habits of the Rio Grande Turkey in mesquite short-grass sites.

Marion, W. R. 1977. Growth and development of the Plain Chachalaca in south Texas. Wilson Bull. 89:47–56. Sex and age determination, growth and plumages and molting were investigated.

Martin, R. F., G. O. Miller, M. R. Lewis, S. R. Martin and W. R. Davis, II. 1977. Reproduction of the Cave Swallow: A Texas cave population. Southwest. Nat. 22:177–186. Clutch size, hatch percentage and nestling survival percentage decreased throughout the season.

Maxwell, T. C. 1977. First record of Heerman's Gull in Texas. Southwest. Nat. 22:282–283. A cold front with high winds at 10,000 feet might have been responsible for bringing this west coast gull inland.

Morrison, M. L., E. Shanley, Jr. and R. D. Slack. 1977. The Food of Olivaceous Cormorants. Southwest. Nat. 22:321–326. Food samples were gathered from chick regurgitations. Four species of fish accounted for the majority of food specimens gathered.

Pattee, O. H. and S. L. Beasom. 1977. Rio Grande Turkey hens with leg spurs. Auk. 94:159. Two out of 284 trapped showed well developed tarsometatarsal spurs.

Pulich, W. M. and J. E. Parrot. 1977. The occurrence of the Gray Vireo east of the Pecos River, Texas. Southwest. Nat. 21:554–555. First probable breeding occurrence east of the Pecos River.

Slaughter, B. H. 1977. Wolves, coyotes, duck, and hybridism. Texas J. Sci. 28:351–354. Ostracized Peking duck and Mallard start hybrid population on Dallas lake.

Smith, F. W. 1977. Records of molting in the Pintail (*Anas acuta*) and Northern Shoveler (*Anas clypeata*) on the Texas Gulf Coast. Southwest. Nat. 21:558. It appears that these species migrated from the breeding areas to wintering grounds before entering into the postnuptial molt.

Wilkinson, J. N., A. G. Canaris and D. Broderson. 1977. Parasites of waterfowl from southwest Texas: I. The Northern Cinnamon Teal (*Anas cyanoptera septentrionalium*). J. Wild. Dis. 13:62–63.

Zinn, K. S. 1977. Olivaceous Cormorants nesting in north central Texas. Southwest. Nat. 21:556–557. The species has apparently become established as an uncommon summer resident, breeding very locally in the north central Texas area.

GENERAL NOTES

Black-legged Kittiwake Sightings on the Upper Texas Coast in Winter of 1976/1977

Ted L. Eubanks, Jr.

4012 Childress, Houston, Texas 77005

The Black-legged Kittiwake (*Rissa tridactyla*), as of 1973, had been recorded on the Upper Texas Coast (UTC) only seven times (1974, *A Birder's Checklist of the Upper Texas Coast*, Ornithology Group, Houston Outdoor Nature Club). The severe winter of 1976/77, however, produced a number of UTC Black-legged Kittiwake sightings equal to the total number of pre-1974 records. Upper Texas Coast kittiwake observations for the winter of 1976/77 began on 14 November 1976 with an immature kittiwake observed at Warren Lake, Harris County (Ted and Janet Eubanks observers). This phenomenal kittiwake winter continued through 14 January 1977 with a seventh individual observed at the Texas City Dike by George and Jane Clayton, lingering as late as 28 February 1977 (T. Ben Feltner and Dolly Bolton).

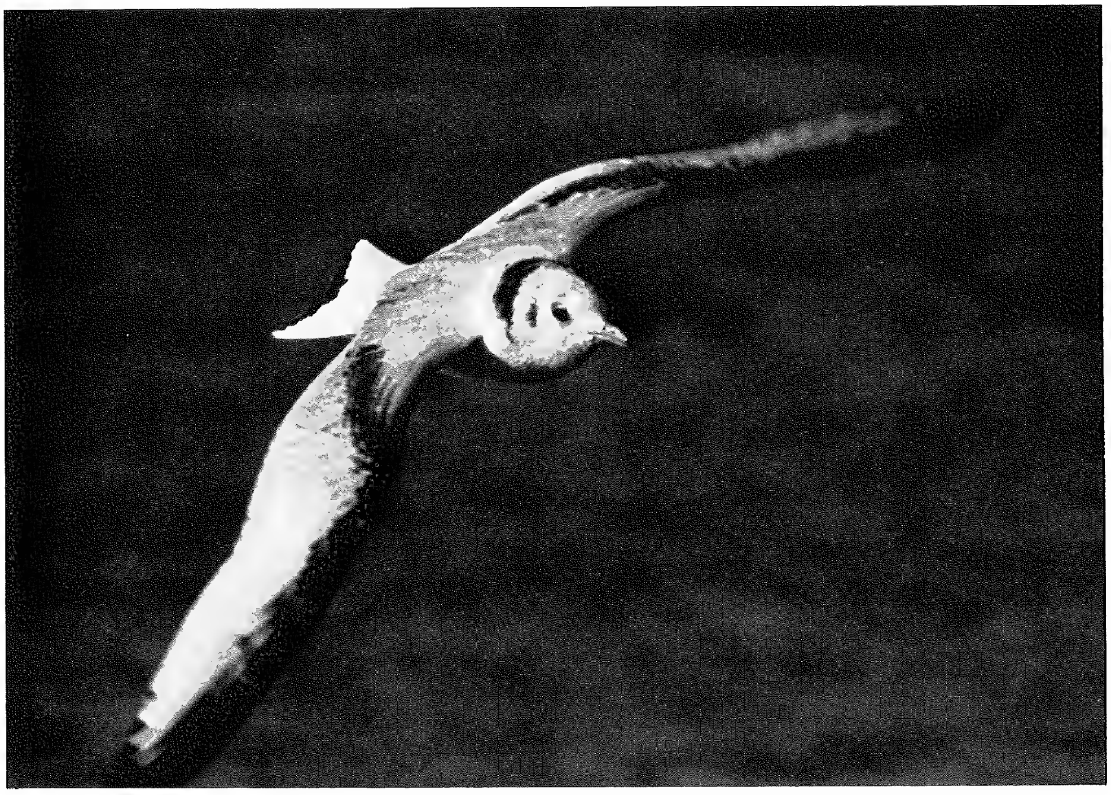


Fig. 1. Black-legged Kittiwake at Texas City Dike, Galveston County. Photographed by Ted L. Eubanks, Jr.

The immature Black-legged Kittiwake which wintered at the Texas City Dike (Fig. 1) attracted the most attention from UTC birders, for in addition to the long duration of its stay, the bird was extremely docile. This individual was regularly fed cull by shrimpers docking at the pier frequented by the kittiwake, possibly explaining this particular bird's "fearless demeanor." For example, this kittiwake was observed and photographed repeatedly from exceptionally close range, often as close as five feet.

Following is a listing of the Black-legged Kittiwake sightings for the Upper Texas Coast during the winter of 1976–1977: 1) one immature kittiwake observed on 14 November 1976 at Warren Lake, Harris County, by Ted and Janet Eubanks; 2) One adult kittiwake observed on 18 December 1976 at Houston Lighting and Power's Cedar Bayou Plant cooling ponds, Chambers County, by Mrs. Sharon Hackelman; 3) Three kittiwakes observed 19 December 1976 at Quintana Jetties, Brazoria County, by T. Ben Feltner; 4) One sub-adult kittiwake observed at Texas City Dike, Galveston County, on 20 December 1976 by David and Jan Dauphin; 5) One immature kittiwake observed initially 14 January 1977 at Texas City Dike, Galveston County, by George and Jane Clayton, and lingered as late as 28 February 1977 at same location, observed by T. Ben Feltner and Dolly Bolton. Further details on these Black-legged Kittiwake observations are found in the "Spoonbill," Volume XXV, Numbers 8–11.

THE AMERICAN ROBIN by Len Eiserer. 1976. Nelson-Hall, Chicago, 175 pp. $12.50.—This delightful little book, which takes great pains to speak to a general audience, will surprise many birders who think they are experts on robins, as it contains a number of facts and anecdotes which surely will be new to almost all of us. The book is clearly based on an exhaustive search of the literature and is on the whole very readable, although its style may from time to time be too cute for some people's taste (e.g. "robinology"—obviously the study of robins; and "frantic fit of frenzied fervor"—a reference to copulating robins). But there is not too much of this sort of thing, and such phrases tend to lose their offensiveness when the book is considered as a whole.

One may profitably read the book for the interesting anecdotes alone, but it also serves as a stimulating introduction to the biology of birds, for in explaining the migration, ecology and behavior of robins, Eiserer naturally has to explain many basic principles of avian biology. This he does in an informal and lively way, thereby demonstrating that one need not be stuffy and tedious in order to talk about a concept of biology. The book is illustrated with cartoon-like line drawings and some captivating full page color photographs of robins.—*Kent Rylander.*

American Woodcock Nesting in Smith County

Warren M. Pulich

Department of Biology, University of Dallas, Irving, Texas 75061

Nesting records of the American Woodcock (*Philohela minor*) in east Texas are rather sparse. Although Davis (1961, Auk 78:272–273) had seen or had reports of woodcocks wintering in Brazos County for 20 years, it was not until 27 February 1959 that he confirmed nesting birds in that area. According to Oberholser, (1974, *The Bird Life of Texas*, Univ. Texas Press, Austin, Texas, Vol. 1, p. 325) the species has been found nesting in only five east Texas counties—Limestone, Leon, Brazos, Harris, and Hardin. The Brazos County record may be the same as Davis (op. cit.) but Oberholser is not clear on this point.

Because there are so few records of the woodcock nesting in Texas, the author wishes to report the nesting of this species near the small community of Garden Valley in northwestern Smith County, 80 km north and slightly east of Leon County. There are no other reports of the bird nesting north of Leon County until Oklahoma is reached. Sutton (1967, *Oklahoma Birds*, Univ. Oklahoma Press, Norman, Oklahoma, p. 181) cites young being found "in bottomland woods along Mountain Fork River in McCurtain Game Reserve." This is the southernmost county in southeastern Oklahoma.

On 10 February 1977 members of the Dallas County Audubon Society made arrangements with Mr. Robert Staton, Jr., of Van, Texas, to lead a group for the express purpose of finding American Woodcocks. Mr. Staton and his father frequently lead hunting parties in and around the Van area. On this trip more than 16 birds were recorded. Birds were found by using "rip rap" (black spotted) pointers.

On 27 February another group of Dallas County Audubon Society members visited the area to view the woodcocks. At that time the party discovered two woodcock nests, each with four eggs. The nests were situated less than 275 meters apart. A bird was flushed from one nest, but no birds were found around the second nest, and, on the assumption that the nest was deserted, the eggs were taken. Unfortunately, two eggs were broken in removal; the remaining two eggs were deposited in the Dallas Museum of Natural History. The eggs were viable, indicating that incubation had been approximately 10 to 12 days along. Assuming that woodcock eggs take 20 to 21 days to hatch (Bent 1927, *Life Histories of North American Shore Birds*, Pt. 1. U.S. Nat. Mus. Bull., No. 142, p. 68) and that incubation does not begin until a full clutch is laid, the first egg would have been laid either on 11 or 12, or 14 or 15 February, depending upon the actual date of embryo death.

Mr. Staton, Jr., continued to watch the remaining nest and found that three of the four eggs hatched on 5 March. The fourth egg was cracked and remained in the nest. Again using Bent's (op. cit.) data, the first egg of this set was laid either on 8 or 9 February. In either case, this set probably was laid before the other set.

The area of woodcock nesting is located in secondary forest type known as the Post Oak Savannah (Gould 1960, *Texas Plants*, Texas A&M University, College

Station, Texas). The terrain is rolling forest lands with intervening streams and creeks. Locally the areas are known as "iron ore hills." Small clearings, many of them man-made, exist among the forest; some of these are reverting back to brush and young tree growth.

The nests were placed upon leaf cover on the ground in dense woods with tangles and underbrush thickets. The principal trees were post oak (*Quercus stellata*), blackjack oak (*Q. marilandica*), red oak (*Q. shumardii*), hickory (*Carya texana*), sweet gum (*Liquidamber styraciflua*), elms (*Ulmus* spp.), dogwood (*Cornus florida*), sassafras (*Sassafras albidum*), and scattered eastern red cedar (*Juniperus virginiana*).

Mr. Staton, Jr., stated this is the first time he has ever found woodcock nesting in the Smith County area, although he has lived and hunted in the area approximately 30 years. It is possible, however, that he might have missed them nesting as most of his searches for woodcocks are normally during the hunting seasons which end earlier than February. His father indicated that five or six years ago a fellow worker told him of finding several small young at the edge of a field, but the details are lacking and, unfortunately, this incident was not confirmed.

Davis (op. cit.) concluded that woodcocks nest in east Texas only in those years when winter rains are considerably above normal. The official weather reports for Tyler (nearest reporting station to nesting sites) indicated that in the last five years, four of five prior to 1976 (including 1976), the percentage of winter rainfall (September through December) was greater than that of the 1976 period, assuming this to be the so-called "above" normal amounts necessary for nesting. Unfortunately, Davis did not give any weather data studies nor did he elaborate on what he meant by "considerably above normal."

The author would like to suggest that possibly some woodcocks nest every year in east Texas. Due to its crepuscular habits and extremely secretive nature, and the fact that few persons frequent its dense habitat regularly, the species may be merely overlooked. Most people search for woodcock in Texas only during the hunting season, that is prior to February and March, when woodcock are hunted along with quail. Woodcock hunting has become a popular sport in Texas only in more recent years. Few make a special effort otherwise to search only for this species.

The fact that the Statons found over 16 woodcocks in one morning with the use of pointers on 10 February offers future bird students in east Texas a clue to studying woodcocks. Only then, when more thorough checks are made specifically for the species, can the status of the woodcock nesting in east Texas be properly determined.

The author gratefully acknowledges the assistance given by the Dallas County Audubon members, particularly Bruce Boardman, Jack Harman, and Edith Hoyt for making him aware of this record, and Robert Staton, Jr. and Sr., of Van, Texas, who so kindly provided the details on the nesting woodcocks.

Southern Nesting Record of the American Woodcock

Brian W. Cain, Richard J. Whyte, and Pat Micks

Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station, Texas 77843

The *TOS* Bird Records Committee (1974, *Checklist of the Birds of Texas*, Texas Ornithological Society) characterizes the American Woodcock (*Philohela minor*) as a "rare winter resident in the east and southeastern coastal areas," and Oberholser (1974, *The Bird Life of Texas*, Univ. of Texas Press, Austin, Vol. 1) indicates the American Woodcock is scarce to rare in the lower eastern portion of Texas. The most recent published record of the American Woodcock nesting in Texas is that of Davis (1961, Auk 78:272–273). He reported three nests found in Brazos County, Texas (30°35'N) in February 1959 and says, "it is reasonable to conclude that Woodcocks nest in eastern Texas only in years when winter rains are considerably above normal." An American Woodcock with 4 young was observed by Lin Risner in March 1977 in Harrison County, Texas; apparently the first reported nesting of the species in northeastern Texas in the last 20 years (C. D. Fisher, pers. comm.).

We sighted an American Woodcock adult with at least two young on 19 March 1977 on the Rob and Bessie Welder Wildlife Foundation, San Patricio County, Texas (28°06'N). The sighting occurred at 1730 on a clear afternoon with the temperature near 25°C. The adult and her brood were standing at the edge of a mowed right-of-way as we drove by. We stopped and, as we approached, the adult squatted and the young dispersed into the taller grasses and forbs. The adult flushed as we approached to within 5 meters and flew weakly across the paved road into a more dense vegetation. We believe the flight was more characteristic of an injury feigning than that of a Bobwhite (*Colinus virginianus*) flushing, as suggested by Oberholser (op. cit.).

We searched the area briefly for the young but were not successful in locating any of the brood. The ground was covered with grass litter and fallen leaves from a large Live Oak (*Quercus virginiana*) tree beside the road. This sighting occurred in the Live Oak-Chapparral Community described by Box and Chamrad (1966, Plant communities of the Welder Wildlife Refuge, Contribution No. 5, Series B., Welder Wildlife Foundation).

Weather data complied for the period between September and December 1976 show that the Welder Wildlife Foundation received 60.96 cm of rain to compare with a "normal" year's rainfall during this period of 29.0 (Climatological Data 1976, Vol. 81, Texas). Perhaps this wetter than normal year allowed this species to nest farther south as suggested above by Davis (op. cit.).

Nocturnal Lesser Yellowlegs Migration in North Central Texas

Charles R. Brown

Box 1309, Austin College, Sherman, Texas 75090

Palmer (*in* Stout, G. D., ed., 1967, *The Shorebirds of North America*, Viking Press, New York, p. 200) states that Lesser Yellowlegs (*Tringa flavipes*) are nocturnal and diurnal migrants. But I have found no references in the literature regarding the extent or flock sizes of nocturnal yellowlegs migration.

On 28 August 1976 at about 2100, Hugh D. Hood and I began hearing many Lesser Yellowlegs passing southward over my house in a residential section of Sherman, Grayson County, north central Texas. We identified the birds by their two- and three-note whistled "yew-yew" calls. By counting calls as they passed a given point, we recorded 575 yellowlegs passing over my yard until 2400 when we ceased listening. We heard 11–21 calls per 5-min period. We noted a peak between 2200 and 2300. It is likely that many more birds were silent while passing over and were not counted, and many more likely passed over after 2400.

In the morning of 28 August 1976, Sam D. Wolfe and I saw 150 Lesser Yellowlegs at Hagerman National Wildlife Refuge, which is 24 km northwest of Sherman. A weak cold front moved through Sherman at about 2000 on 28 August. When the yellowlegs passed over, temperature was 23.9–25.5°C. Wind was northerly at about 8 km.p.h. Sky was mostly clear. The following day was overcast with drizzle. No yellowlegs were heard on subsequent evenings.

Although there appear to be few references on yellowlegs migration, it seems that this flight was exceptionally large. It is difficult to speculate on the extent of this flight, but from my record of 575 Lesser Yellowlegs passing over my yard, it would seem that the total flight numbered several thousand.

Pigeon Nest Constructed of Wire

Eric G. Bolen

Rob and Bessie Welder Wildlife Foundation, Sinton, Texas 78387

An unusual nest of a Rock Dove (*Columba livia*) consisting almost entirely of wire was presented to the Welder Wildlife Foundation by Dr. Allan H. Chaney of the Biology Department at Texas A&I University, Kingsville. The nest contained a single egg (Fig. 1) and the withered skin of a downy chick. It was located in an exhaust stack at the Celanese Chemical Plant in Kleberg County near Kingsville during the winter of 1976–77. Several types of wire were used in the construction of the nest. With the assistance of James C. Cox, I identified 14 types of wire, both

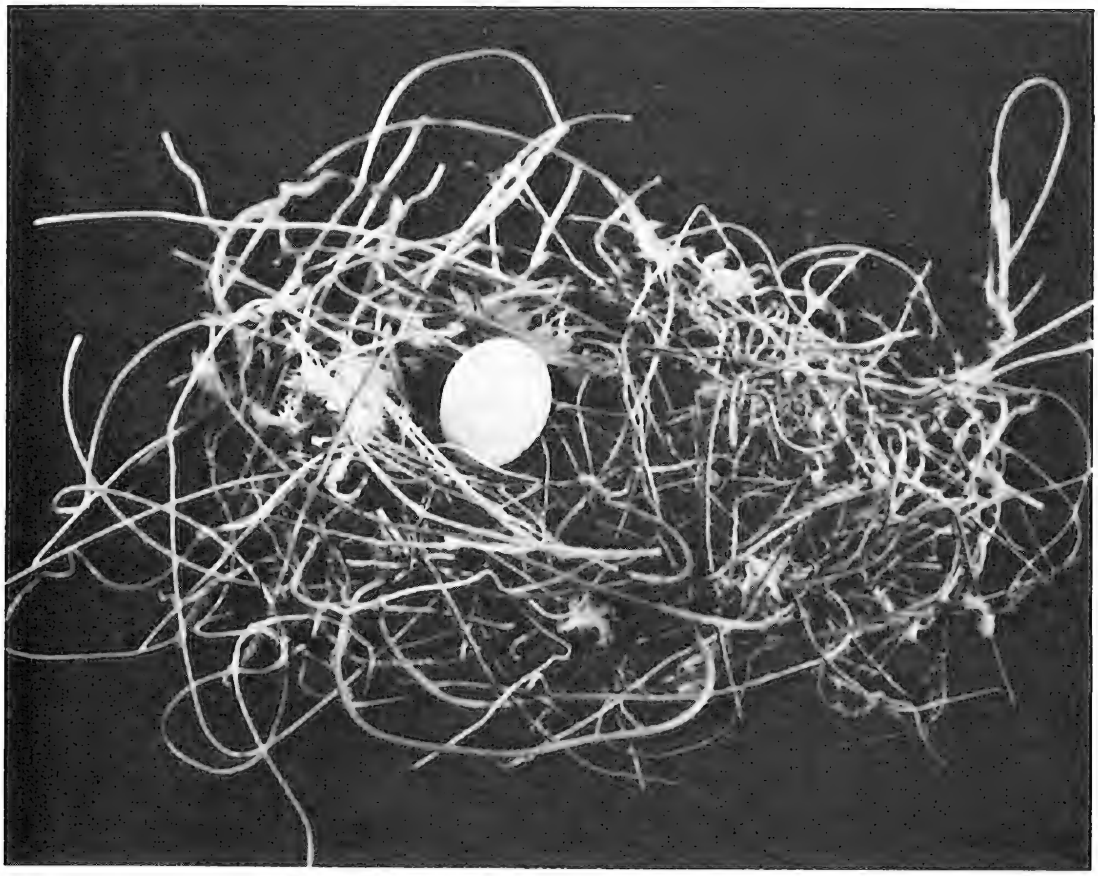


Fig. 1. Wire nest of Rock Dove with egg and remains of a downy chick (group of feathers near egg). Photograph by Eric G. Bolen.

twisted and smooth of the following kinds: smooth aluminum electrical airline cable trimmings (16 gauge); stainless steel wire (16 gauge); iron concrete reinforcing rod ties (14 gauge); wire packing ties (14 gauge); steel twist cable about 18 inches long ($^{3}/_{64}$ inch); nest wire fence trimmings; fence ties; a 2-inch length of barbed wire; steel wire (20 gauge); several pieces of baling wire; insulated copper electrical wire (14 gauge); stainless steel twist cable (18 gauge); galvanized tie wire (16 gauge); and a single clipping from a $^{1}/_{32}$-inch piece of sheet aluminum. Perhaps no more than a dozen pieces of plant material, mostly grass stems, supplemented the wire materials in the nest.

Paterson (1977, Auk 94:159–160) recently reported a similar nest constructed of wire and plant materials also discovered at a chemical factory. He mentioned that House Wrens (*Troglodytes aedon*) also have been known to build nests of metal materials. The present nest is thus the second known occurrence of a wire nest for the Rock Dove. I thank Gene W. Blacklock and A. H. Chaney for their assistance.

BOOK REVIEWS

ALABAMA BIRDS 2nd Edition by Thomas A. Imhof. 1976. The University of Alabama Press, for the Alabama Department of Conservation and Natural Resources, Game and Fish Division. 445 pp., color and black-and-white plates and photographs. $22.50.—In the 14 years since the appearance of the first edition, much has happened in Alabama for ornithology and birding; this second edition is aimed at helping both of these audiences. The revision is an attempt to do much for the reader—probably too much. However, the owner of this book can keep a record of the birds seen in Alabama on the inside covers and end-sheets where all species are listed in A.O.U. order, frequently with a brief comment about the status. In the two chapters preceding the species accounts, Imhof presents a synopsis on Bird Study (bird-watching techniques, history of Alabama ornithology, physiography of the state, birds and the law, migration, and banding), then gives the plan of the species accounts. The latter stands as an explanation of why a subject receives a particular treatment. All-in-all, this chapter will be very helpful to the reader.

Of the 378 bird species now reported from Alabama, 30 species have been added since the first edition appeared in 1952. Six birds are included ". . . on the basis of many records by many expert observers." These include Red-throated Loon, Swainson's Hawk, Long-billed Dowitcher, Northern Phalarope, Great Black-backed Gull, and Clay-colored Sparrow. There are 35 species listed at less than full status; 30 of these have not been sufficiently substantiated by specimen or photograph, while five have either become extinct or have been extirpated from the state, including Whooping Crane, Passenger Pigeon, Carolina Parakeet, Ivory-billed Woodpecker, and the Common Raven.

The 43 plates, 33 in color, illustrate 340 species, and are placed together near the middle of the book. There are four additional plates of color photographs. Three other species are illustrated by photographs. Most of the plates are adequate, but not outstanding. However, the frontispiece, by Walter A. Weber, is an exception. Numerous photographs, distribution maps and other illustrations are scattered, appropriately, throughout the book. I cannot fathom how species were selected for inclusion of a distribution map.

Despite my negative comments above, this book is a good value for the price as it contains a wealth of information not just about Alabama birds, but about some 378 species of which most may be found in Texas. *Alabama Birds* will prove useful to anyone interested in the birds of the Gulf coast states.—*Keith A. Arnold.*

A BIRD FINDING AND NATURALIST'S GUIDE FOR THE AUSTIN, TEXAS, AREA by Edward A. Kutac and S. Christopher Caran. 1976. The Oasis Press, Austin, 145 pp. $3.50—These two authors have developed a small paperback (21.5 cm × 14.0 cm) which is a must for anyone planning a trip to the central portion of Texas. This book is sponsored by the Travis Audubon Society and the Austin Natural Science Association and should be an incentive for others to produce similar works for other metropolitan areas. The first 15 pages present in a clear manner the physiography, climate, and specialties of the area leading

into the next 26 pages which cover specific "birding" areas within 60 miles of Austin. I have used two of the seven maps of birding spots in Austin and four of the nine maps of the surrounding areas and found the maps easy to follow and thus quite useful.

These authors have bothered to replace the old common names with the now accepted common names of the birds in their checklist (25 pages). The bar graph presented with each species represents clearly the possibility of sighting that species at a particular season in the Austin area.

The 59 pages devoted to annotated checklists of fishes, reptiles, and mammals found within the Austin area, and the preliminary checklist of plants and land snails, are all of some interest, but of limited use to most visiting this area. The authors may have added greatly to their already useful field book had they filled these pages with a good description of the vegetation communities within the "birding" areas and with perhaps a few good photographs of the typical habitats encountered by visiting these aforementioned sites. In general, however, this small guide is a bargain and should become a common item in the glove boxes of most birders.—*Brian W. Cain.*

1976 SUPPLEMENT TO FINDING BIRDS IN MEXICO by Ernest P. Edwards. 1976.—As the title page implies, Dr. Ernest P. Edwards' publication supplements his 1968 edition of *Finding Birds in Mexico*. It is the only bird-finding guidebook which covers all of Mexico. The new book actually brings up-to-date the ever-changing events that are transpiring in our environment, and Mexico is no exception. The two publications *must* be used together to be meaningful. An up-to-date road map is also a must, and a tourist guidebook is necessary.

In order to derive full benefit of the Edwards' supplement, one should do his "homework!" It is not a publication to pack just before departing but rather should be read several times before taking a trip to Mexico.

Given are full revisions of one subregion, Northern Atlantic Lowlands, and one region, Yucatan. Other revisions were made only wherever necessary.

Listed are any changes in names and status of Mexican birds since 1968. In addition, Edwards compares names he uses with those differing in the Peterson and Chalif field guide.

Edwards points out that two of our *TOS* members have helped coauthor this supplement, although he still analyzed, summarized, and reworked all the material. The areas represented are two Christmas count localities in eastern Mexico; El Narango with T. B. Feltner and Gomez Farias with Fred Webster.

A list of references are provided which give the current list of publications from Mexico and adjacent Guatemala, British Honduras (Belize) and Honduras. Species are indexed as well as localities.

It is unfortunate for those who already have the 1968 edition that they cannot buy the supplement. The two books may be purchased only as a unit for $8.00 from Dr. Ernest P. Edwards, Box AQ, Sweet Briar, VA 24595. The books are highly recommended to anyone who wishes to visit Mexico for the first time.—*Warren M. Pulich.*

[Editor's Note: Warren Pulich reviewed the 1968 edition of *Finding Birds in Mexico* by Ernest P. Edwards in the *Bulletin of the Texas Ornithological Society*, 1969, Vol. 3:22.]

NOTES AND NEWS

ABOUT THE ARTIST.—The drawing of the Sharp-shinned Hawk (inside front cover) is by James Harvey Johnson of Bryan, Texas. James' drawings were featured in the December 1976 and June–July 1977 *Bulletins*. He and his wife, Jocile, reside at 1908 Carter Creek Parkway, Bryan, Texas 77801.

REQUESTS FOR INFORMATION

Wanted: Data on the seasonal distribution of North American Gulls.—We are developing a procedure whereby the U.S. Air Force can predict the potential seasonal hazard to aircraft represented by gulls in parts of North America. This knowledge will be used to schedule missions around high risk areas thereby reducing the likelihood of bird/aircraft collisions. Supplemental data on local gull populations are needed from all parts of the continent. The assistance of field workers is solicited to aid us in this task.

For each observation, please provide the following information: list of species present, approximate number of each species, precise locality description, dates observed, any information about causes for concentrations (e.g. sanitary landfill operation), and any details about the frequency of such concentrations in the respective areas. Information is sought from inland as well as coastal localities. Please submit reports of your gull observations to Dr. William E. Southern, Department of Biological Sciences, Northern Illinois University, DeKalb, IL 60115. Data will be gathered for a 2-year period beginning 1 September 1977.

Martin bibliography.—A comprehensive bibliography of the North and South American martins (*Progne* spp.) is currently in preparation. It will include all papers dealing solely or partly with martins, except local annotated checklists. Authors wishing to have material included should send an abstract or reprint to Charles R. Brown, Box 1309, Austin College, Sherman, Texas 75090.

EDITORIAL ASSISTANCE.—The editor wishes to thank M. Kent Rylander, Michael L. Morrison, Kirke A. King, Frances Williams, Charles D. Fisher, Keith A. Arnold, Steve Munzinger, Brian R. Chapman, Jack D. Tyler, Gene W. Blacklock, Terry C. Maxwell, Ralph R. Moldenhauer, John Arvin, George A. Newman, and Warren Pulich for reviewing manuscripts submitted to the *Bulletin* for publication during 1977. I am grateful to Jean Schulz and Donna Reichert for typing much of the final copy for Volume 10. Michael L. Morrison and Alan Mitchnick provided invaluable editorial assistance for Volume 10 of the *Bulletin of the Texas Ornithological Society*.

BULLETIN.—The following issues of the *BULLETIN OF THE TEXAS ORNITHOLOGICAL SOCIETY* have been published and constitute a complete set as of December 1977.

VOL. 1
- No. 1 (April, 1967)
- No. 2 (June, 1967)
- No. 3/4 (August/October, 1967)
- No. 5/6 (December, 1967)

VOL. 2
- No. 1 (January/March, 1968)
- No. 2 (April/June, 1968)
- No. 3 (July/September, 1968)
- No. 4 (October/December, 1968)

VOL. 3
- No. 1 (January/March, 1969)
- No. 2 (April/June, 1969)
- No. 3 (July/September, 1969)

VOL. 4
- (December, 1971)

VOL. 5
- No. 1 (June, 1972)
- No. 2 (December, 1972)

VOL. 6
- No. 1 (June, 1973)
- No. 2 (December, 1973)

VOL. 7
- (Fall, 1974)

VOL. 8
- (Fall, 1975)

VOL. 9
- (Fall, 1976)

VOL. 10
- No. 1 (June/July, 1977)
- No. 2 (November/December, 1977)

Back issues of the *Bulletin* may be ordered (@50 cents each) from Elaine Robinson (T.O.S., P.O. Box 19581, Houston, Texas 77024) or from the *Bulletin* Editor.

TEXAS ORNITHOLOGICAL SOCIETY

Dedicated to the observation, study and conservation of birds in Texas

Founded 1953

OFFICERS FOR 1977–1979

President—Charles Dean Fisher, Department of Biology, Stephen F. Austin University, Box 3003, Nacogdoches, Texas 75961.
President-elect—B. D. Orgain, 1970 Shady Lane, Beaumont, Texas 77706.
Vice-president—Frances Williams, 3307 W. Neely, Midland, Texas 79701.
Secretary—Sue Lower, 715 W. Main, Nacogdoches, Texas 75961.
Treasurer—Ralph Clearman, P.O. Box 33, Bartlett, Texas 76511.
Bulletin Editor—R. Douglas Slack, Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station, Texas 77843.
Newsletter Editor—Elaine Robinson, 11 River Circle, Houston, Texas 77063.
Past-president—Victor Emanuel, 1603 W. Clay, Houston, Texas 77019.

REGIONAL DIRECTORS

I. Fern Cain, 406 W. Grand, Borger, Texas 79007.
II. Margaret Francis, 1110 Carroll Dr., Garland, Texas 75041.
III. Louis Debetaz, Science Div., Angelina College, Lufkin, Texas 75901.
IV. Jodie Miller, Box 279, Valentine, Texas 79854.
V. Clarence Wiedenfeld, 127 Oakwood, San Angelo, Texas 76901.
VI. Keith Arnold, Department of Wildlife & Fisheries Sciences, Texas A&M University, College Station, Texas 77843.
VII. Phyllis Yochem, 354 Williamson, Corpus Christi, Texas 78411.
VIII. David T. Dauphin, 2300 Taft #165, Baytown, Texas 77520.

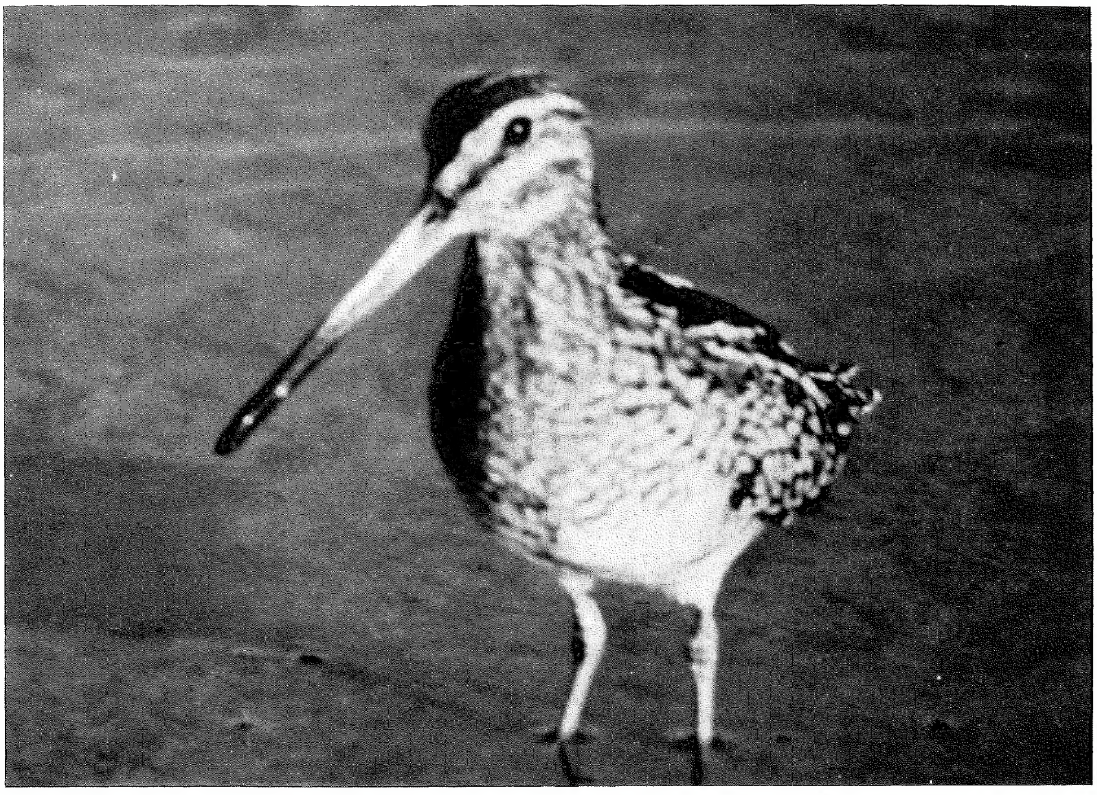
The *Bulletin* and *Newsletter* of the *Texas Ornithological Society* are issued to all members not in arrears for dues. Membership in the *Texas Ornithological Society* is open to all persons interested in observation, study, and conservation of birds in Texas. Membership dues are $3.00 per year (student), $5.00 per year (active), $10.00 per year (sustaining), $100.00 paid once, or in $25.00 annual payments over a period not to exceed four years (life). Inquiries regarding membership should be addressed to Ms. Elaine Robinson at *TOS*, P.O. Box 19581, Houston, Texas 77024. Original articles, reports and other items submitted for inclusion in the *Bulletin of the Texas Ornithological Society* should be sent to the editor, R. Douglas Slack, Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station, Texas 77843.

Printed at Allen Press, Inc., Lawrence, Kansas 66044

BULLETIN
OF THE
TEXAS ORNITHOLOGICAL SOCIETY

R. DOUGLAS SLACK, Editor
Department of Wildlife and Fisheries Sciences
Texas A&M University
College Station, Texas 77843

NON-PROFIT ORG.
U.S. POSTAGE
PAID
AUSTIN, TEXAS
PERMIT NO. 2744



Common Snipe from Stillhouse Hollow Reservoir, Bell County, December 1977.
Photograph by William S. Stewart.